PM101 Pocket Vibration Meter



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1-Ch Portable Digital Vibration Level Meter

ACC / VEL / DISP / RMS / PEAK / Pk-Pk / Digital Display

PM101-1CH

Main Features

- ♦ Hand-Held Unit for General Purpose Vibration Measurement
- ♦ Accelerometer type sensor
- ♦ RMS Velociy, Pk-Pk Displacement
- ♦ Digital Display
- ♦ Surface-mount technology for high reliability
- ♦ Touch type membrane switch panel
- ♦ Digital Signal Processing
- ♦ Portable and Compact Unit
- ♦ Economical, easy to use
- Environmental friendly
- ♦ Rugged, suitable for Industrial use



VIBRATION MEASUREMENT

Vibration Measurement on Rotating Machinery is usually done for two major applications

- ♦ Quality Control and
- ♦ Predictive Breakdown Maintenance
- ♦ In addition to the commonly understood QC applications on motors, generators, blowers, or a host of rotating or reciprocating machinery
- ♦ Vibration is increasingly being used with enormous benefits for second application: Predictive Breakdown maintenance
- ♦ In continuously running plant, where sudden breakdowns can be disastrous, Vibration is an immensely important indicator for planning an effective predictive maintenance strategy.
- ♦ Periodically observed vibration readings at strategic points on the machine will indicate a rising trend well before a breakdown occurs.
- ♦ This signals are initiative for taking timely corrective actions
- ♦ With corrective actions unexpected machine failures will be drastically reduces
- ♦ It results in substantial saving in downtime

General Introduction

- ♦ PM101 Vibration Meter is a handheld Digital instrument designed for a large variety of vibration measurement applications
- ♦ True RMS, Peak, Pk-Pk of Acceleration, Velocity and displacement can be measured
- ♦ PM101 is suitable for variety of vibration measuring needs such as for fans, blowers, turbines, generators, rotary or balanced opposed compressors, pumps, motors, alternators, engines, gearboxes, bearing etc.
- ♦ Easy to use: Just connect the sensor, attach a magnetic base or the probe, contact it to the point where the vibration is to be measured, choose appropriate scale and the units for the digital vibration readings

Construction

- ♦ PM101 Vibration Meter is scale down version of PA201 Vibration Analyzer
- ♦ Large number of vibration users prefer the advanced digital processing both from accuracy and easy to use considerations
- ♦ Very cost effective solution and stable outputs in case of non-constant inputs
- ♦ High Dynamic Range due to 24 bit ADC, built in digital amplifiers
- ♦ Rigid sensor with high frequency range as per vibration ISO standards
- Acceleration collected by sensors is digitized and processed by a DSP (Digital Signal Processor) for very accurate and real-time outputs
- ◆ State-of-art surface mount devices to keep the entire electronic on a single PCB, making it reliable and economical
- ♦ Sealed membrane type bare minimum controls available to user to increase the usability and reliability

Industrial Meter

SPEC

Industrial Meter Specification



ITEM	DAQ SPEC
A/D Converter	24 Bit
Input Channel	1 - Channel
Sensor Type	IEPE
Sampling Frequency	20,000Hz
Input Range	\pm 5V(peak) or \pm 2.5V(peak)
Dynamic Range	<high> : 30 ~ 130 dB, +/-50g full scale ← default <medium> : 20 ~ 110, dB, +/-5 g <low> : 0 ~ 90 dB, +/-0.5 g</low></medium></high>
Input Signal Gain	1, 10,100
SNR	100dB More
Frequency Range	2Hz - 10kHz(3dB)
Temperature	-10°C to +55°C

Digital Meter Technical Specifications				
Measurement Mode	True RMS, Peak, Pk-Pk of Acc, Vel and Disp			
Sensor Type	Accelerometer			
Contact Method	Magnetic base or Stainless steel tipped touch Probe			
Indication	Digital Meter			
Range:				
Velocity	6 ranges with full scale 1,3,10,30,100 and 300 mm/sec RMS			
Displacement	6 ranges with full scale 10,30,100,300,1000 and 3000 microns Pk-Pk			
Frequency Range	2 Hz to 10,000 Hz (120 RPM to 6,00,000 RPM)			
Battery	2 AA Battery			
Approx Life per Charge	10 hours continuous			
Dimensions	150 mm X 80 mm X 35 mm			
Weight	Less than 0.5 Kg			
Environmental	-10 to 55 degree			
Standard Accessories	Accelerometer Sensor, 2 meters Cables, Magnetic Base, 250 mm Touch Probe, Carrying Case, Operation Manual			

Note: Technical data and specification subject to change.

Special Vibration Meter can be made on request, Please send us your technical requirements and application details.

Company Specialized in Sound/Vibration



SV Corporation

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